



Water Quality Report 2009



Your Drinking Water

As your drinking water provider, Scottsdale is required to prepare and distribute an annual report about the quality of our water. Presented in this booklet is our 2009 Water Quality Report. This report provides valuable information about our drinking water including where our water supply comes from, our water treatment processes, the results of analytical testing performed on our water and how these results compare with federal water quality standards. We also present valuable information on our water reclamation activities and water conservation.

The Safe Drinking Water Act of 1974 contains federal regulations that safeguard our nation's tap water. The Environmental Protection Agency (EPA), Arizona Department of Environmental Quality (ADEQ), and the Maricopa County Environmental Services Department are responsible for enforcing com-

pliance with these regulations. We work closely with these agencies to maintain compliance with drinking water standards and assure a reliable water supply.

In 2008, the City of Scottsdale delivered more than 25 billion gallons of water to our customers. Our team of trained water professionals are committed to providing the highest quality water and the best possible service. Testing performed on our drinking water shows that water provided by City of Scottsdale met or surpassed all federal and state drinking water standards. Scottsdale water is extensively tested for over 100 substances the EPA has determined may be unhealthy to humans if consumed over extended periods of time above the health standards. Health standards are set to detect and/or eliminate unwanted substances long before they pose a health threat.

A Message from the EPA about Drinking Water

To ensure your tap water is safe to drink, the EPA issues regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for substances in commercial bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Sources of drinking water include rivers, lakes, reservoirs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Possible contaminants that may be present in source water include:

- Microbial contaminants including viruses, bacteria or parasites (such as *Cryptosporidium* or *Giardia*), which may come from agricultural or livestock operations and wildlife.
- Inorganic contaminants such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides that may come from a variety of sources such as agriculture, storm water runoff and residential uses.
- Organic chemical contaminants including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- Radiochemical contaminants, which occur naturally or result from oil and gas production and mining activities.



Attention Immuno-Compromised Citizens

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy; persons who have undergone organ transplants; people with HIV/AIDS or other immune system disorders; and some elderly people and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency / Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (800-426-4791).



City of Scottsdale Water Supply and Treatment

Our water supply comes from both surface water and groundwater sources. Throughout the year you may receive water from any one of these sources, or a combination of water sources. Consumer demand, weather and time of year are all factors that influence where your water supply originates.

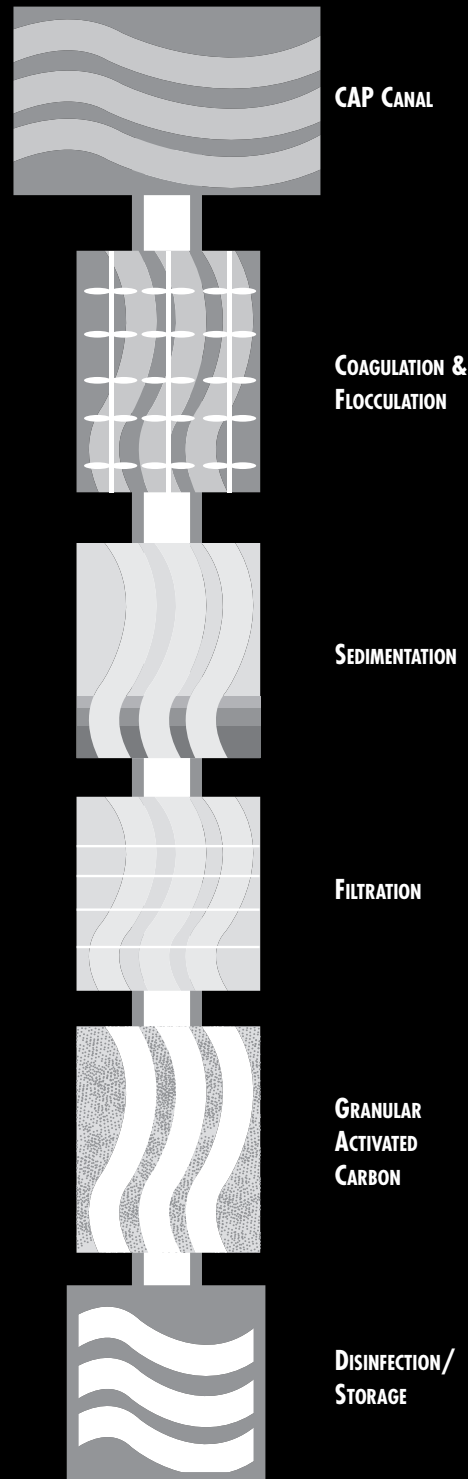
The city's main surface water supply is from the Colorado River. This water is transported through the Central Arizona Project (CAP) aqueduct to the Scottsdale CAP Water Treatment Plant where it is treated to drinking water standards before being served to customers.

Scottsdale also receives surface water from Salt River Project (SRP), which originates from the Verde and Salt rivers. Water is transported by SRP to the Chaparral Water Treatment Plant (CWTP) where it is treated to drinking water standards before being served to customers.

Besides these surface water sources, Scottsdale water comes from aquifers stored deep below ground. The water is pumped from the ground through one of the city's 23 active wells and then disinfected prior to entering the distribution system. The water from many of these wells receives treatment prior to disinfection and distribution to our customers.

As part of Scottsdale's contingency plan, the city has purchased minimal quantities of water from City of Phoenix for service to the southern portion of the city. Water quality information for City of Phoenix water supply can be found by visiting www.phoenix.gov/WATER/quality.html.

Central Arizona Project (CAP) Water Treatment Plant



COAGULATION/FLOCCULATION
Large mixers called flocculators and an additive called "alum" are used to draw small particles together to form larger heavier particles.

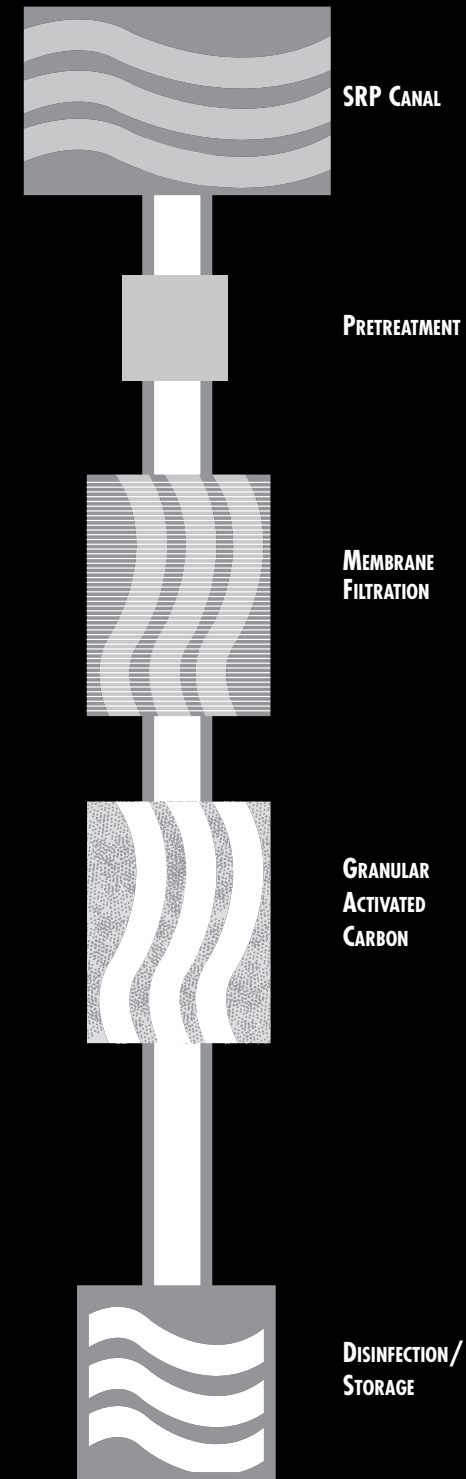
SEDIMENTATION
The water is moved to large rectangular basins where the large particles settle to the bottom and are then removed.

FILTRATION
Very small particles that remain in the water are removed by a filtering process.

GRANULAR ACTIVATED CARBON (GAC)
The water is then pumped through large vessels containing GAC. GAC is a black sand-like material that adsorbs natural organic matter contained in the water. As water passes through the GAC, organic matter is removed decreasing objectionable taste and odors in the water.

DISINFECTION/STORAGE
The final step is disinfection with chlorine. Water carrying a slight chlorine residual is distributed to water customers. A chlorine residual is required by regulation to ensure adequate destruction of harmful microbes.

Chaparral Water Treatment Plant (CWTP)



PRETREATMENT
A chemical, ferric sulfate, is added to the water to aid in the removal of naturally occurring arsenic.

MEMBRANE FILTRATION
The membrane filtration system uses submerged hollow fibers containing micron-sized pores. Water molecules are able to pass through the small pores, while undesirable contaminants are too large and cannot pass through. Using low-pressure flow, the water passes through the pores and contaminants are filtered out. The clean water is then pumped on for further treatment.

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The final step is disinfection with chlorine. Water carrying a slight chlorine residual is distributed to water customers. A chlorine residual is required by regulation to ensure adequate destruction of harmful microbes.

Some of our groundwater sources require removal of arsenic, a naturally occurring contaminant. Groundwater in Scottsdale and throughout Arizona contains varying levels of naturally occurring arsenic. The City of Scottsdale operates three facilities that remove arsenic from groundwater.



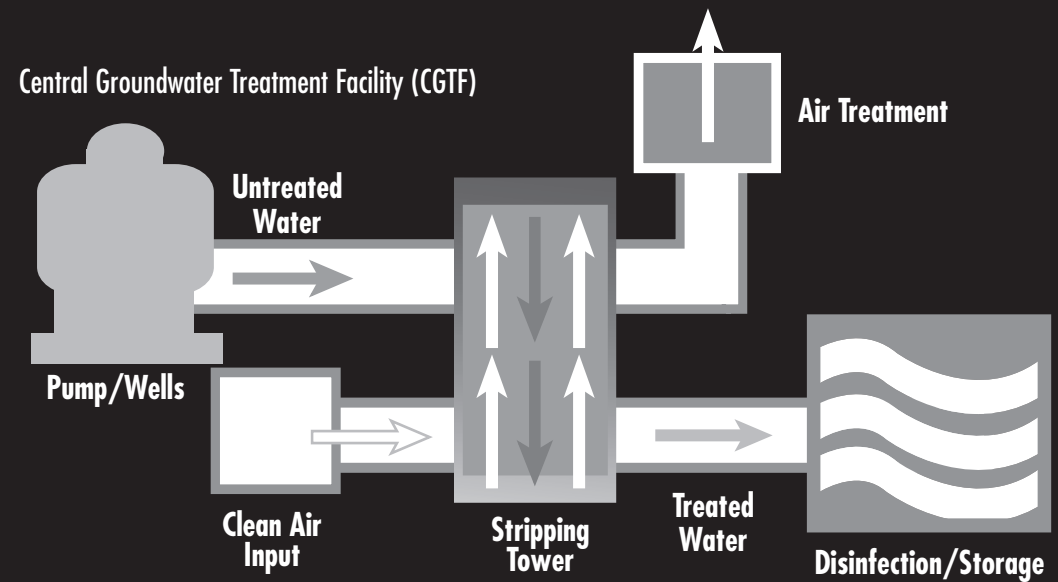
Arsenic Treatment Facility - Removing Arsenic from Groundwater



Pump/Wells
Groundwater containing moderate levels of arsenic is pumped from a well site to a treatment facility.

Treatment
The water passes through an adsorption-based media, where the arsenic attaches itself to the media and is effectively removed from the water.

Disinfection/Storage
The treated water is then moved to a reservoir for disinfection and storage before it is delivered to the City of Scottsdale drinking water system.



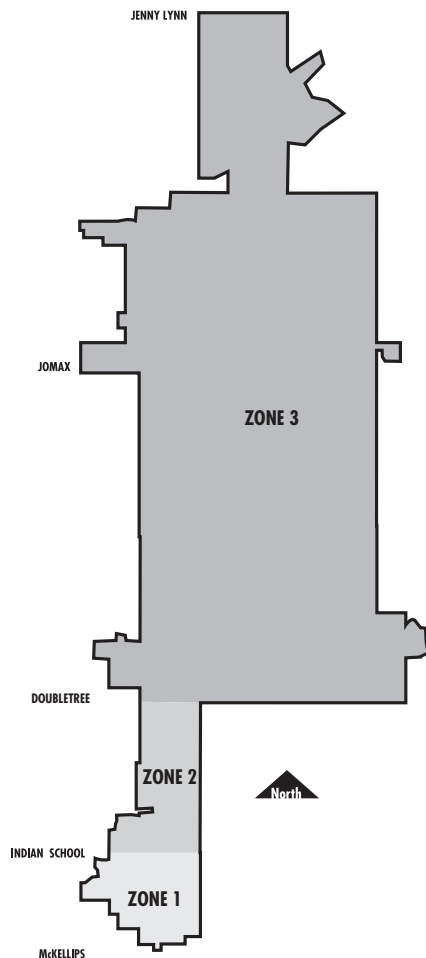
Central Groundwater Treatment Facility (CGTF)

Some of our groundwater supply also comes from the North Indian Bend Wash (NIBW) superfund site. The Central Groundwater Treatment Facility (CGTF), depicted in the graphic above, treats water pumped from four groundwater wells that contain trichloroethylene (TCE), an industrial chemical. The CGTF facility located at Pima and Thomas roads was built by private companies deemed potentially responsible for contaminating the groundwater with TCE. The private companies are responsible for the cost of operating and maintaining the facility. The facility pumps groundwater from an area designated by EPA as the NIBW Superfund site. The groundwater is treated to federal and state drinking water standards, with regulatory oversight by EPA, ADEQ, and Maricopa County.

For more information on the NIBW Superfund site, please call EPA's message line (800-231-3075). For more information on the NIBW Central Groundwater Treatment Facility, please contact the City of Scottsdale at (480) 312-8732 or visit our water quality Web site at www.scottsdaleaz.gov/water/superfund.

How does the NIBW Central Groundwater Treatment Facility work?

- Water pumped from the four wells flows down through three treatment columns.
- The treatment facility uses a process that "strips" the water of contaminants by mixing the water with air. As the water and air mix, the contaminants volatilize into the air.
- The air used in the treatment process is passed through activated carbon filters to remove the contaminants before the air is released.
- The treated water is then moved to a reservoir for disinfection before it is delivered to the City of Scottsdale drinking water system. The water in the reservoir is combined with other treated water sources to meet customer demand.



Service Area Boundaries

Scottsdale's water service area is divided into three different zones: Zone 1, Zone 2 and Zone 3. Use the map and associated chart to determine what zone you are located in and what sources of water you receive.

ZONE 1

Supplied by treated groundwater from CGTF and supplemented with water treated at Chaparral Water Treatment Plant. This zone may seasonally receive water from the CAP Water Treatment Plant.

ZONE 2

Supplied by water treated at Chaparral Water Treatment Plant and supplemented with water treated at CAP plant.

ZONE 3

Supplied by treated water from CAP plant and supplemented with groundwater. Lower portions of this zone may seasonally receive water from the Chaparral Water Treatment Plant.

Important Definitions and Abbreviations

Contaminant

Any physical, chemical, biological, or radiological substance or matter in the water.

Maximum Contaminant Level (MCL)

The highest level of a contaminant allowed in drinking water. MCLs are set by the EPA as close to Maximum Contaminant Level Goals as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is required for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL)

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

Part per million (ppm) / Part per billion (ppb)

These units describe the levels of detected substances. One part per million can be described as one minute in two years. One part per billion is one second in thirty-two years.

Picocuries per liter (pCi/L)

A measure of radioactivity in water.

Health Based Guidance Level (HBGL)

Developed by Arizona Department of Health Services (ADHS). They represent levels that are unlikely to result in adverse health effects with long-term exposure to humans.

Non-Detectable (ND)

The substance was analyzed but not detected.

Not Applicable (NA)

A regulatory limit does not exist.





2008 Detected Results

The results of Scottsdale's water quality analyses are presented in the following pages. These results are for samples collected between January 1 and December 31, 2008. Scottsdale water is tested for over 100 substances, however, only the substances that are detected in the water are listed in this report. A complete list of all substances that the city monitors is available upon request.

Arsenic is a naturally occurring mineral commonly found in water due to erosion from rocks and soil. The maximum contaminant level (MCL) allowed in drinking water is 10 ppb, based on a running annual average. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their cir-

culatory system, and may have an increased risk of getting cancer. In 2008, the highest level of arsenic measured in Scottsdale's drinking water was 7.9 parts per billion (ppb).

Nitrate is an inorganic substance that is monitored due to run off from fertilizer use. Nitrate in drinking water at levels greater than 10 ppm is a health risk for infants of less than six months of age. Nitrate levels above 10 ppm in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time due to rainfall or agricultural activity. If you are caring for an infant you should seek advice from your health care provider. In 2008, the highest nitrate level detected in Scottsdale's drinking water was 6.0 ppm.

2008 Inorganics

SUBSTANCE	UNIT	MCL	MCLG	ZONE 1 RANGE	ZONE 2 RANGE	ZONE 3 RANGE	LIKELY SOURCE IN DRINKING WATER
Arsenic	ppb	10	0	5.2 - 5.4	ND - 5.4	ND - 7.9	A
Barium	ppb	2000	2000	35 - 44	35 - 140	ND - 162	A
Chromium	ppb	100	100	ND	ND	ND - 36	A
Fluoride	ppm	4	4	ND	ND - 0.3	0.3 - 1.0	A
Nitrate	ppm	10	10	ND - 6.0	ND - 1.0	ND - 2.4	B

A — Erosion of natural deposits

B — Erosion of natural deposits. Runoff from fertilizer use and leaching from septic tanks.

2008 Organics

SUBSTANCE	UNIT	MCL	MCLG	ZONE 1 AVERAGE RANGE	ZONE 2 AVERAGE RANGE	ZONE 3 AVERAGE RANGE	LIKELY SOURCE IN DRINKING WATER
Ethylbenzene	ppb	700	700	NA ND	NA ND	ND ND - 8.4	A
Xylenes	ppm	10	10	NA ND	NA ND	0.0017 ND - 0.039	B

A — Discharge from petroleum factories

B — Discharge from chemical and petroleum factories

2008 Radiochemicals

SUBSTANCE	UNIT	MCL	MCLG	ZONE 1 HIGHEST AVERAGE RANGE	ZONE 2 HIGHEST AVERAGE RANGE	ZONE 3 HIGHEST AVERAGE RANGE	LIKELY SOURCE IN DRINKING WATER
Gross Alpha (Alpha Emitters)	pCi/L	15	0	8.9 4.4 - 8.9	5.1 4.4 - 5.1	5.1 2.0 - 5.1	A
Radium 226	pCi/L	5	0	NA ND	NA ND	0.9 ND - 0.9	A
Uranium	ug/L	30	0	11.2 2.3 - 11.2	5.0 2.3 - 5.0	5.0 1.5 - 5.0	A

A — Erosion of natural deposits

2008 Turbidity Results at CAP and Chaparral Water Treatment Plants

SUBSTANCE	TREATMENT TECHNIQUE	MCLG	HIGHEST MEASUREMENT	LOWEST MONTHLY PERCENTAGE	LIKELY SOURCE IN DRINKING WATER
Turbidity	No turbidity measurement can be above 1 NTU at any time, and at least 95% of turbidity measurements in any month must be less than or equal to 0.3 NTU.	NA	0.19	100% of monthly samples met treatment technique requirements	Soil runoff

Turbidity is a measure of clarity in the water and is reported as Nephelometric Turbidity Units (NTU). Turbidity is caused by suspended matter such as organic and inorganic matter, silt, algae or tiny microorganisms. The turbidity of water is measured to determine the effectiveness of the water treatment process. To ensure that low turbidity levels are maintained, a treatment technique standard applies instead of a MCL. In accordance with the Interim Enhanced Surface Water Treatment Rule (IESWTR), the city measures turbidity continuously at the water treatment plants.

2008 Microbial Monitoring

SUBSTANCE	MCL	MCLG	ENTIRE DISTRIBUTION SYSTEM	LIKELY SOURCE IN DRINKING WATER
Total Coliform	Presence in no more than 5% of monthly samples	0	The highest monthly percentage of samples in which Total Coliforms were present was 0.64%.	Naturally present in the environment

Microbial, Disinfectant Residual and Disinfection Byproduct samples are collected throughout the city's distribution system at 154 dedicated sampling stations. These samples are representative of water delivered to Scottsdale homes and businesses.

Scottsdale's drinking water is treated with chlorine to control microbial activity within the water distribution system. Each month, the City of Scottsdale staff collects over 150 samples from within the distribution system to ensure chlorine levels are adequate and verify the absence of microbes. Scottsdale's goal is to have a chlorine residual between 0.8 ppm and 1.2 ppm in all monthly samples. When chlorine residuals are outside of the preferred range, the city makes necessary adjustments to return the residual to the preferred range.

2008 DISINFECTANT AND DISINFECTION BYPRODUCT MONITORING

SUBSTANCE	UNITS	MCL	MCLG	LOWEST LEVEL	HIGHEST LEVEL	ANNUAL RUNNING AVERAGE	MAJOR SOURCE IN DRINKING WATER
Chlorine ^a	ppm	MRDL=4.0	MRDLG=4.0	ND	2.2	1.04	Water additive used to control microbes
Total Organic Carbon	ppm	TT	NA	0.85	2.7	2.4	Naturally present in the environment
Total Trihalomethanes (TTHM) ^a	ppb	80	NA	1.8	118	68.4	Byproduct of drinking water disinfection
Haloacetic Acids (HAA) ^a	ppb	60	NA	ND	64.8	24.6	Byproduct of drinking water disinfection

^a: The MCL is based on a system wide annual running average and based on this average, the City was below the MCL.

Disinfection Byproducts including Trihalomethanes and Haloacetic Acids are formed as a result of a chemical reaction between chlorine and naturally occurring organic matter in the water. In order to minimize the formation of disinfection byproducts, levels of Total Organic Carbon (TOC) are reduced through the treatment process primarily through the use of granular activated carbon (GAC) adsorption. TOC levels are monitored before and after water treatment to ensure adequate removal of TOC. Further, chlorine levels are carefully controlled so that disinfection is effective, while minimizing levels of disinfection byproducts. Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.



Results of Lead and Copper Monitoring in Residential Households

SUBSTANCE	UNITS	ACTION LEVEL (AL)	MCLG	AMOUNT DETECTED	LIKELY SOURCES IN DRINKING WATER
Lead	ppb	90% of homes tested must have lead levels less than 15 ppb	0	90% of the homes tested had lead levels less than 1.9 ppb	Corrosion of household plumbing
Lead from City water sources	ppb	NA	NA	ND - 6.6	Erosion of natural deposits
Copper	ppm	90% of homes tested must have copper levels less than 1.3 ppm	1.3	90% of the homes tested had copper levels less than 0.26 ppm	Corrosion of household plumbing
Copper from City water sources	ppm	NA	NA	ND - 0.043	Erosion of natural deposits

Lead and copper are used to make household plumbing fixtures and pipes. Lead and copper may leach from faucets or plumbing components into water when the water stands in pipes for several hours. Leaching may also occur in copper pipes joined with lead-based solder. Because the water in your pipes can pick up these metals, installation of lead containing solder, pipes and fittings was banned in 1986. The 2008 lead and copper levels reported above are from water faucets inside 50 Scottsdale homes that were built before the lead ban. Results from two homes exceeded the 15 ppb action level for lead; the homeowners were contacted for notification purposes and to discuss how to minimize lead exposure from drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Scottsdale is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

2008 Secondary Inorganics

SUBSTANCE	UNIT	MCL	MCLG	ZONE 1 RANGE	ZONE 2 RANGE	ZONE 3 RANGE
Alkalinity	ppm	NA	NA	156 - 186	126 - 156	126 - 250
Aluminum	ppm	NA	NA	ND	ND - 0.09	ND - 0.09
Calcium	ppm	NA	NA	31 - 65	31 - 73	18 - 97
Chloride	ppm	NA	NA	32 - 222	32 - 96	30 - 96
Hardness, Total	ppm	NA	NA	155 - 405	155 - 295	149 - 295
	grains/gallon	NA	NA	9 - 24	9 - 17	9 - 17
Iron	ppm	NA	NA	ND	ND	ND - 0.90
Magnesium	ppm	NA	NA	19 - 59	19 - 27	15 - 27
Manganese	ppm	NA	NA	ND	ND	ND - 0.036
pH	Std. Unit	NA	NA	7.5 - 8.3	7.1 - 8.3	7.0 - 7.8
Sodium	ppm	NA	NA	35 - 95	35 - 96	21 - 96
Sulfate	ppm	NA	NA	36 - 101	36 - 262	10 - 262
Temperature	°C	NA	NA	13 - 30	11 - 27	11 - 35
	°F	NA	NA	81 - 112	77 - 106	77 - 121
Total Dissolved Solids	ppm	NA	NA	250 - 680	250 - 630	140 - 630
Zinc	ppm	NA	NA	0.015 - 0.016	0.014 - 0.016	ND - 0.14

Secondary inorganic substances do not have a maximum contaminant level and are measured voluntarily because these substances primarily relate to the taste, odor, or appearance of drinking water. These inorganic substances occur naturally in the soil and water.



Additional Water Quality Information

CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal illness. Cryptosporidium must be ingested to cause this illness, and it may be spread through means other than drinking water. From 2002 to 2006, Scottsdale conducted regular monitoring for Cryptosporidium in the city's two surface water sources. This data was collected in preparation for the regulation entitled Long Term 2 Enhanced Surface Water Treatment Rule which was promulgated in January 2006. The data collected for Cryptosporidium was submitted to regulatory agencies and was approved. Based on the data submitted, regulators deemed that additional treatment for Cryptosporidium is not needed at our water treatment plants.

The city continues to conduct voluntary monitoring for Cryptosporidium in our source water. In 2008, Cryptosporidium was detected in our untreated source water at levels up to 1.4 oocysts in a 10 liter sample. This organism is effectively removed through the use of multimedia filtration in the treatment process.

PERCHLORATE

Perchlorate is a man-made inorganic salt that is used as a component of solid rocket fuel munitions and in the pyrotechnics fireworks industry. In January 2009, the EPA set an interim health advisory level of 15 ppb for Perchlorate in drinking water and is also seeking advice from the National Academy of Sciences before making a final regulatory determination for perchlorate. Arizona has a health-based guidance level of 14 ppb. Current regulations do not require perchlorate monitoring in drinking water. However, due to the detection of perchlorate in Lake Mead, which flows into the Colorado River and subsequently the CAP supply, the City of Scottsdale elects to monitor our CAP source water for perchlorate. During voluntary monitoring in 2008, the highest concentration

of perchlorate was 2.3 ppb in samples taken from the Scottsdale CAP water supply. Additional information about perchlorate can be obtained from the EPA Safe Drinking Water Hotline (800-426-4791).

MTBE (METHYL-T-BUTYL ETHER)

MTBE is a member of a group of volatile organic chemicals commonly known as fuel oxygenates. Oxygenates are added to fuel to increase its oxygen content. MTBE is used in gasoline throughout the United States to reduce carbon monoxide and ozone levels caused by auto emissions. MTBE is highly soluble in water, and therefore groundwater contamination is a concern for water utilities.

The EPA does not currently have a maximum contaminant level for MTBE or require MTBE monitoring in drinking water. However, EPA has recommended that MTBE concentration not exceed 20-40 ppb. Scottsdale began monitoring for MTBE in 2002, and to date there has been no detectable MTBE in drinking water served to Scottsdale customers. Additional information about MTBE can be obtained from the EPA Safe Drinking Water Hotline (800-426-4791).

SOURCE WATER PROTECTION PROGRAM (SWAP)

In 2004, the City of Scottsdale worked with ADEQ to review and finalize a source water assessment for the groundwater wells and surface water sources used by the city. The assessment reviewed the adjacent land uses that may pose a potential risk to our water sources. The risks identified include, but are not limited to, gas stations, landfills, dry cleaners, agriculture fields, and wastewater treatment plants. Once the adjacent land uses were identified, they were ranked by their potential to affect the water source. The result of the assessment was that the risk to the various sources depended both on nearby activities and the physical structure of the source itself.

The city's groundwater wells have low to medium risk, with the exception of the wells linked to the Central Groundwater Treatment Facility. Those wells were identified as having a high risk of contamination, but the water produced by the wells is treated to drinking water standards and monitored closely by the city, ADEQ, and the EPA. All surface water sources, which include Lake Pleasant and the Verde River watershed, are considered high risk due to their exposure to open air. The overall risk posed to surface waters is addressed by the EPA through its increased monitoring requirements for surface water sources.

The city continually protects our sources by carefully siting future wells, monitoring water quality of all sources, providing security, and continuing public education. Residents can help protect sources by practicing good septic system maintenance (if you use a septic tank), taking household hazardous chemicals to hazardous material collection days, and limiting pesticide and fertilizer use.

The complete assessment is available for inspection at the ADEQ, 1110 W. Washington, Phoenix, Arizona 85007, between the hours of 8 a.m. and 5 p.m., or visit the ADEQ's Source Water Assessment and Protection Unit Web site at www.azdeq.gov/environ/water/dw/swap.html. This information is also available from the City of Scottsdale Water Resources Department at 480-312-8732.

City of Scottsdale Water Quality Staff

480-312-8732

www.scottsdaleaz.gov/water/quality

City of Scottsdale Water Operations and Conservation

(main breaks, etc.)

480-312-5650

United States Environmental Protection Agency's

Safe Drinking Water Hotline

800-426-4791

www.epa.gov/safewater

Arizona Department of Environmental Quality

602-771-2300

www.adeq.state.az.us/environ/water/dw/index.html

Maricopa County Environmental Services Department

602-506-6666

www.maricopa.gov/EnvSvc/WaterWaste/

Water-related topics may be discussed at City Council meetings or other public forums and we welcome your attendance. Meeting notices are posted in the "Pride" utility bill insert and City Council agendas are posted on the city's Web site at www.scottsdaleaz.gov/council/meeting_index/City_Council_Agendas_and_Minutes.asp

For specific water quality questions, call (480) 312-8732.

Este informe contiene informacion muy importante sobre su agua potable. Si desea una copia de este informe en español o tiene alguna pregunta sobre el, por favor llame a (480) 312-8711.



www.tapintoquality.com
www.wateruseitwisely.com
www.epa.gov/watersense/
www.drinktap.org

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Planning for the Future

CAP WATER TREATMENT PLANT IMPROVEMENTS

The City of Scottsdale recently completed construction for an advanced water treatment filtration process called granular activated carbon (GAC) adsorption. The use of GAC adsorption will help the city to meet upcoming federal water quality regulations by lowering levels of naturally occurring organic matter, including total organic carbon (TOC). By reducing TOC levels, the formation of disinfection byproducts is also decreased. GAC treatment is also in use at the Chaparral Water Treatment Plant, serving the southern portion of Scottsdale. In addition to lowering the levels of organic matter in the water, GAC treatment will also improve the overall taste and odor of the water.

The city is also expanding the capacity of the CAP Water Treatment Plant in order to help meet gradually increased demand and continue to reduce our dependency on groundwater. The plant currently produces 50 million gallons per day (MGD) of drinking water. The expansion will increase the capacity to 70 MGD and is scheduled for completion by early 2010.

WATER RECLAMATION AND GROUNDWATER RECHARGE

Water reclamation and groundwater recharge are very important components of Scottsdale's overall water supply management strategy. Scottsdale is a leader in implementing water reuse and groundwater recharge practices to ensure sustainability of this vital resource.

The Scottsdale Water Campus includes a state-of-the-art facility where wastewater is treated and reclaimed for golf course irrigation and groundwater recharge. In 2008, approximately 2.5 billion gallons of reclaimed wastewater was sent to 23 local golf courses and the Scottsdale Sports Complex for turf irrigation.

During periods of low water demand, typically the winter months, excess reclaimed wastewater is further treated through a three-step advanced water treatment process. The first step is micro filtration, an advanced membrane filtration process that can remove minute particles and bacteria. The second step is Reverse Osmosis, a membrane process capable of removing even the smallest particles and contaminants. The third step is natural soil filtration, where the treated water flows through several hundred feet of soil before reaching our

ground water supply. These three steps provide a safe and drought resistant source of water that recharges, or replenishes, our valuable ground water resource.

Scottsdale also recharges treated CAP water directly into the aquifer through specially designed wells. These wells are used for recharge during periods of low water demand and then the water is recovered to supplement the water supply during periods of high demand, typically in the summer months.

In 2008, groundwater recharge added nearly 2 billion gallons of water to our underground storage aquifers. As a result, the city achieved "Safe Yield", which means we pumped an equal amount of groundwater from the aquifer as compared to the amount that was naturally and artificially recharged. Safe yield results in a tremendous community benefit by helping preserve the groundwater supply for future generations.

The groundwater aquifer crosses City boundaries. Scottsdale staff is working together with the City of Phoenix and other neighboring communities to plan for future sustainability of our shared resource.

DROUGHT PLANNING

In spite of above average rainfall in our localized area during 2007 and 2008, the city's main source of water, the Colorado River, continues to suffer from low storage conditions. Many wet years would be needed to help the system fully recover from recent dry conditions. In July 2003, the Scottsdale City Council adopted a Drought Management Plan should dry conditions prevail and severe shortages occur.

There are four increasingly restrictive stages in the Drought Management Plan. Each stage contains more stringent water use reduction measures and outlines ways to achieve these measures. Declaration of drought at any stage will initiate an intensive public information program to advise customers impacted by the water shortage measures.

Scottsdale currently has enough water supplies to meet customers' needs due to proactive planning. While the need to institute mandatory water-use restrictions is not anticipated, Scottsdale continues to promote voluntary conservation year round. City staff continually monitors the drought situation to ensure that we remain prepared.



The Water Conservation Office has an extended menu of conservation outreach programs designed to help citizens save water. Water Conservation staff offer a lineup of excellent educational workshops, informative residential water audits and a variety of rebate programs. WaterSense, the Scottsdale Xeriscape Garden at Chaparral Park, and water saving tips are also topics the Water Conservation Office can provide information on. To reach the Water Conservation Office, please call (480) 312-5650 or visit the Web site at www.ScottsdaleAZ.gov/water/conservation.

WORKSHOPS

The City sponsors low-water-use landscape workshops several times a year. The workshops cover topics such as landscape design, plant selection, planting techniques, landscape maintenance and water-efficient irrigation.

RESIDENTIAL WATER AUDIT

The audit program offers a one-time free irrigation water audit to single-family residential homes. If you have questions such as “How much water does my yard need?” or “Does my irrigation system leak?” then an irrigation audit is for you.

PUBLICATIONS

Water Conservation promotes and distributes brochures on low-water-use landscaping to Scottsdale’s citizens. Popular brochures include

- Landscape Plants for the Arizona Desert - Guide to Growing More Than 200 Low-Water-Use Plants
 - Xeriscape Landscaping With Style in the Arizona Desert
 - Landscape Watering by the Numbers.
- These publications can be viewed online or you can request copies be mailed to your home.

WATER – USE IT WISELY

Water Conservation is an active participant in the “Water - Use It Wisely” advertising campaign with other Valley cities. The campaign promotes easy things citizens can do to save water. For more information on Water – Use It Wisely, go to www.wateruseitwisely.com.

WATERSENSE

WaterSense, a partnership program sponsored by the US Environmental Protection Agency, seeks to protect the future of our nation’s water supply by offering people a simple way to use less water. Visit WaterSense at www.epa.gov/watersense to find information on labeled water- efficient toilets, faucets, and more.



REBATE PROGRAMS

City rebate programs encourage installation of water efficient plumbing fixtures and/or low-water-use landscapes. Currently the city offers five water conservation rebates. To qualify for a rebate the applicant must comply with the procedure in the most current rebate application form available from the Water Conservation Office.

PLUMBING REBATE

Rebate incentives are offered for the installation of low-flow toilets (\$75) and showerheads (\$5) for structures built prior to Jan. 1, 1992. Free aerators are also available for water customers. Check EPA's WaterSense program for toilet models that qualify for rebates.

HOT WATER RECIRCULATION SYSTEM REBATE

The hot water recirculation device moves hot water from the water heater quickly, eliminating the need to "let the water run" in order to get hot tap water. The program offers a rebate of up to \$200 per household. A minimum plumbing permit from the City is required.

TURF REMOVAL FOR RESIDENTIAL CUSTOMERS REBATE

Single family residential customers can receive a rebate for converting an existing high-water-use landscape to a low-water-use landscape. The rebate amount is up to \$1,500 and is calculated based on the amount of turf removed.

TURF REMOVAL FOR COMMERCIAL & RESIDENTIAL COMMON AREAS REBATE

A rebate of up to \$3,000 is offered for the removal of turf and installation of city approved low-water-use landscaping. A plan must be approved by City of Scottsdale Planning and Development Services.

LANDSCAPE IRRIGATION CONTROLLER REBATE

A rebate of up to \$250 is offered for the purchase of a new multi-programmable irrigation controller.

SCOTTSDALE XERISCAPE GARDEN AT CHAPARRAL PARK

The garden is located at 5401 N. Hayden Road, on the southeast corner of Hayden Road and McDonald Drive. This five-acre garden is designed to demonstrate the beauty of low-water-use plants and water-efficient landscaping principles. Attractions include four outdoor classrooms, 135 low-water-use plant species, and signage that addresses topics such as how the earth recycles water, rainwater harvesting, and plant care.

For more information about rebates, workshops, publications, and other City water conservation programs, contact the City's Water Conservation office at 480-312-5650 or visit our Web site at www.scottsdaleAZ.gov/water/conservation.

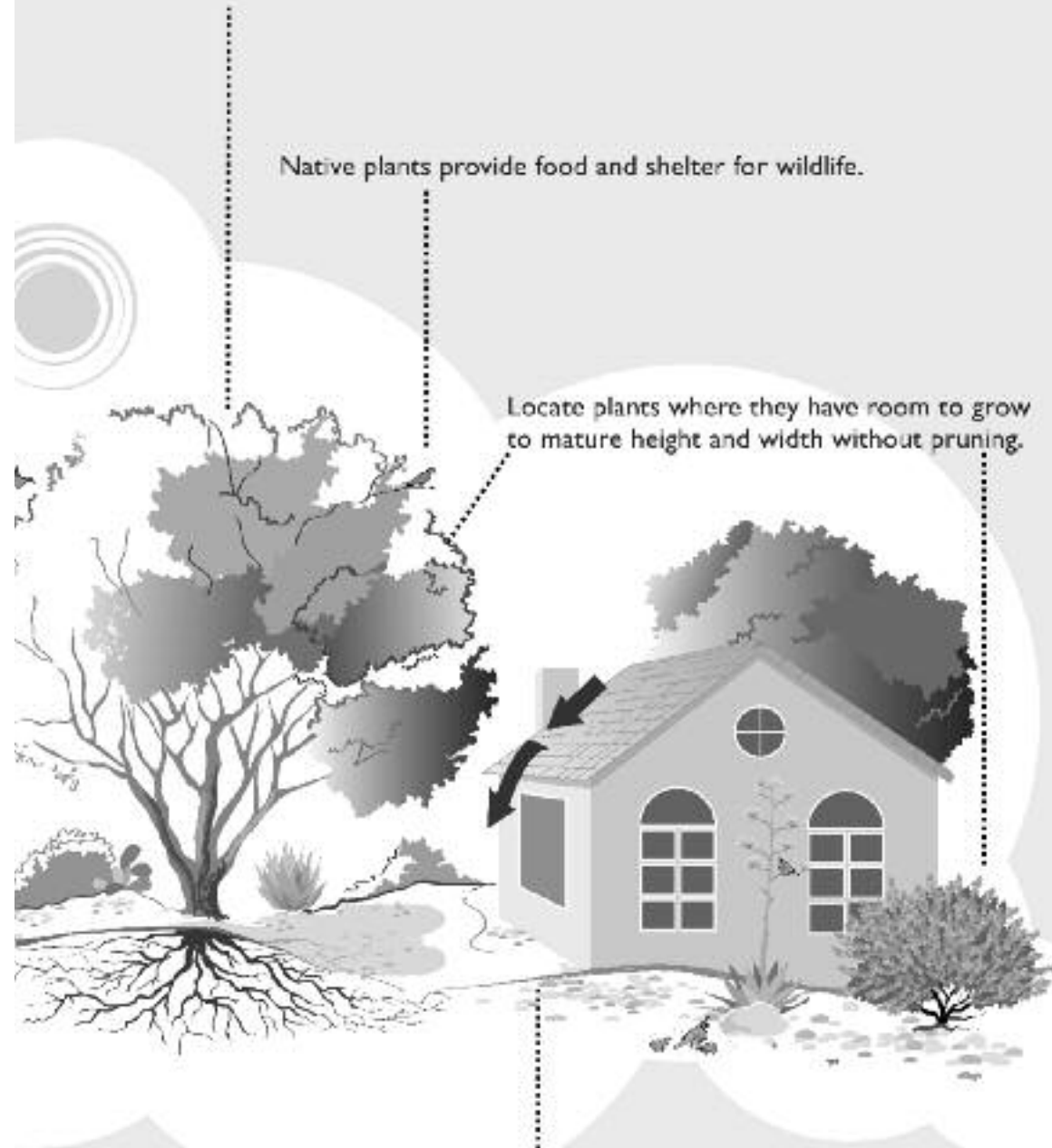


Plant evergreen trees on the west and deciduous trees on the east side of the house to maximize shade and energy savings through the year.

Native plants provide food and shelter for wildlife.

Locate plants where they have room to grow to mature height and width without pruning.

Use mounds and depressions in the landscape to direct rain from the roof to root zones. Direct water at least 8 to 10 feet away from structures.





Shop local...it preserves our quality of life

The revenues from local sales tax helps fund the amenities that make Scottsdale such a great place to live. Whether it's our parks system and ball fields, the desert preserve or newly paved roads...shopping Scottsdale is an investment in where you live.



Water Quality

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